

CLAIMS

1. An optical transceiver module comprising:
an approximately box-shaped package, having a transceiver
chamber inside;

5 first and second metal plates, provided separately and
independently of each other in the transceiver chamber of the
package;

----- a first substrate, provided on the first metal plate,
the first substrate mounting a light emitting device;

10 a second substrate, provided on the second metal plate,
the second substrate mounting a photodetector;

an optical waveguide, optically coupled to the light
emitting device and the photodetector; and

15 a plurality of leads provided in the package, the leads
providing electric connection between each electrode of the
light emitting device and the photodetector and the exterior
of the package.

2. The optical transceiver module according to claim 1,
20 wherein the package is formed of a resin.

3. The optical transceiver module according to claim 1 or
2, wherein a capacitor is included between the second metal
plate and the cathode terminal of the photodetector, the
25 capacitor electrically connecting the second metal plate and

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the cathode terminal of the photodetector.

4. The optical transceiver module according to any one of claims 1 through 3, wherein the specific resistance value of 5 the first substrate mounting the light emitting device is 1 $\text{k}\Omega \cdot \text{cm}$ or above.

5. The optical transceiver module according to any one of claims 1 through 4, wherein at least either the first and the 10 second metal plates is connected to a ground external to the package via the either lead.

6. The optical transceiver module according to any one of claims 1 through 5, wherein a preamplifier is mounted on the 15 second metal plate and that electrical connection is established between the anode terminal of the photodetector and the input terminal of the preamplifier and between the output terminal of the preamplifier and any one of the leads.

20 7. The optical transceiver module according to any one of claims 1 through 6, wherein the package has a through hole across the floor of the transceiver chamber and the bottom surface of the package and at least either the first or the second metal plate is electrically conducted to the bottom surface of the 25 package via the bottom surface of the metal plate and the through

hole.

8. The optical transceiver module according to any one of claims 1 through 7, wherein a boundary part where the first 5 and the second metal plate adjacently surface each other has a shape of cranks supplementing each other or a curve.

9. The optical transceiver module according to any one of claims 1 through 8, wherein the package has part of the 10 transceiver chamber has an opening that is open outside and the opening is closed with a lid formed of a metal or ceramic.

10. An optical transceiver mounting the optical transceiver module according to any one of claims 1 through 9, wherein the 15 substrate mounting the package of the optical transceiver module has an area lacking a conduction pattern in its area on the top surface thereof where the bottom surface of the package is in contact.

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